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**PROJECT IMPLEMENTATION PROFILE
INFLUENCING INFORMATION TECHNOLOGY
PROJECT SUCCESS. A MODERATING EFFECT OF
LEADERSHIP STYLES AND ORGANIZATIONAL
CULTURE TYPES IN PAKISTAN**



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UUM
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**DOCTOR OF PHILOSOPHY
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LEADERSHIP STYLES AND ORGANIZATIONAL CULTURE TYPES IN
PAKISTAN**



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Universiti Utara Malaysia

**Thesis Submitted to
School of Technology Management and Logistics,
Universiti Utara Malaysia
In Fulfillment of the Requirement for the Degree of Doctor of Philosophy**



Kolej Perniagaan
(College of Business)
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ABSTRACT

Risks and uncertainty which prevails everywhere, is an obvious aspect of all projects of information technology in Pakistan. Project delay is extra severe where cost overruns usually exceeded hundred percent of the predicted cost of the project in information technology projects in Pakistan. There are only 12% project-based IT companies in Pakistan. Failure rate is high and 60% professionals are unaware about the importance of project mature in Pakistan. The aim of the study is to increase awareness in temporary organizations and finding way to ensure project success through model development. There is need for professionals to track a consistent and rational approach to achieve certain organizational outcomes. The outcome of a project can be related to the influence of cultural, leadership, project management and critical success factors. To overcome these issues, this study applied 10 critical success factors tool known as project implementation profile to facilitate professionals for project management process behavioural issues and strategic issues during project development. It can be applied to a variety of industries and organizations and is being utilized to ensure criteria. Through quantitative methodology technique, an explorative study has been adopted with close-ended questionnaires of project implementation profile and categorical moderators consisting of leadership styles and project culture types. Two hundred and twenty-three respondents were assumed usable from a population of one thousand seven hundred and twenty. Respondents were project manager, manager on project team and team members. PLS-SEM technique was employed for analysis and Top Management Support was found to be more significant and positive. Furthermore, the study developed a model based on the ranking of empirical results for the ten parameters, its criteria and its categories. Future research to be considered include accountability as a moderator with project implementation profile.

Keywords: project management, IT project success, leadership, culture.

ABSTRAK

Risiko dan ketidakpastian yang boleh berlaku di mana sahaja, adalah suatu kebiasaan dalam semua projek teknologi maklumat di Pakistan. Kelewatan projek menjadi lebih parah apabila kos lewat biasanya melebihi seratus peratus daripada kos projek yang diramalkan dalam projek teknologi maklumat di Pakistan. Terdapat hanya 12% syarikat IT berasaskan projek di Pakistan. Kadar kegagalan adalah tinggi dan 60% professional tidak menyedari betapa pentingnya kematangan projek di Pakistan. Tujuan kajian ini adalah untuk meningkatkan kesedaran dalam organisasi sementara dan mencari jalan untuk memastikan kejayaan projek melalui model pembangunan. Terdapat keperluan professional untuk mengesan pendekatan yang konsisten dan rasional untuk mencapai hasil organisasi yang tertentu. Hasil sesebuah projek boleh dikaitkan dengan pengaruh budaya, kepemimpinan, pengurusan projek dan factor kejayaan kritis. Bagi mengatasi isu-isu tersebut, kajian ini menggunakan 10 perkakasan factor kritikal kejayaan yang dikenali sebagai profil pelaksanaan projek untuk membantu para professional dalam isu-isu tingkah laku proses pengurusan projek dan isu-isu strategik semasa pembangunan projek. Ia dapat digunakan dalam pelbagai industry dan organisasi dan sedang digunakan untuk memastikan kriteria. Melalui teknik metodologi kuantitatif, kajian eksploratif telah dijalankan dengan menggunakan soal selidik terhadap tentang profil pelaksanaan projek dan pengantara yang jelas yang terdiri daripada gaya kepimpinan dan jenis budaya projek. Dua ratus dua puluh tiga responden dianggap boleh digunakan daripada seribu tujuh ratus dua puluh orang penduduk. Responden adalah pengurus projek, pengurus pasukan projek dan ahli-ahli pasukan. Teknik PLS-SEM digunakan untuk analisis dan sokongan pengurusan tertinggi didapati lebih penting dan positif. Tambahan pula, kajian ini membangunkan model yang berdasarkan kedudukan keputusan empirik bagi sepuluh parameter, kriteria dan kategorinya. Kajian pada masa hadapan untuk dipertimbangkan termasuk akauntabiliti sebagai pengantara dengan profil pelaksanaan projek.

Kata kunci: pengurusan projek, kejayaan projek IT, kepimpinan, budaya.

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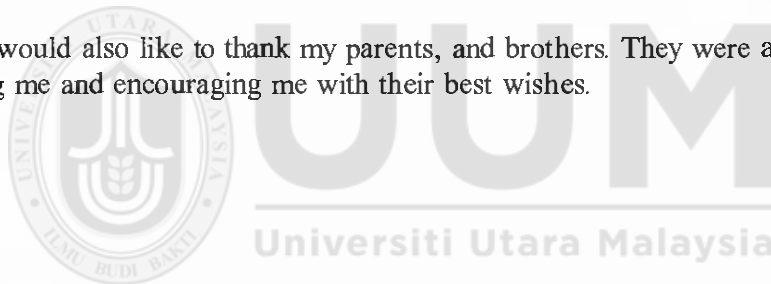


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LIST OF ABBREVIATIONS

PERT	Program Evaluation Review Technique
CPM	Critical Path Method
PIP	Project Implementation Profile
CSFs	Critical Success Factors
ISO	International Standards Organization
CMM	Capability Maturity Model
CMMI	Capability Maturity Model Institute
PS	Project Success
PMBok	Project Management Body of Knowledge
IT	Information Technology
PM	Project Management
PMA	Project Management Association
IPMA	Institute of Project Management Association
PMI	Project Management Institute
HRM	Human Resource Management
TQM	Total Quality Management
PLC	Project Life Cycle
RBV	Resource Based View
EWS	Early Warning system
SMEs	Small and Medium Entrepreneurs
PIM	Project Integration Management
PSM	Project Scope Management
PTM	Project Time Management

PCoM	Project Cost Management
PQM	Project Quality Management
PHRM	Project Human Resource Management
PCmM	Project Communications Management
PRM	Project Risk Management
PPM	Project Procurement Management
PSM	Project Stakeholder Management
PMMM	Project Management Maturity Model
COE	Centre of Excellence
COBIT	Control Objectives for Information Technology
MMS	Maturity Models
IDPM	International Development Project Management
ID -	International Development
CFFs	Critical Failure Factors
ERP	Enterprise Resource Planning
OP	Operations Research
MS	Management Sciences
CVF	Competing Values Framework
GDP	Gross Domestic Product
SBP	State Bank of Pakistan
PSEB	Pakistan Software Export Board
CFA	Confirmatory Factor Analysis
PMS	Project Management Success
PLS-SEM	Partial Least Square Sequential Equation Modelling

CR	Composite Reliability
AVE	Average Variance Extracted



CHAPTER ONE

INTRODUCTION

1.1 Background of the Study

Facts evaluated that the world is fetching perpetual complexity. Project managers are coming across this in their daily business operations, being experienced with an increasing number of complex events. Complexity in projects is repeatedly associated with uncertainty (Daniel & Daniel, 2018). Complexity and uncertainty are often pertained to project management risks (Sommer, Loch, & Dong, 2009; Turner & Cochrane, 1993; Williams, 2005; Williams, 1999). For example, in developing countries especially IT projects in Pakistan, project delay is extra severe where cost overruns usually exceed one hundred percent (100%) of the predicted cost of the project (Azhar, Farooqui, & Ahmed, 2008). In addition to that the Enterprise Resource Planning (ERP) project was noticeably delayed and therefore enhanced costs were related to problems with implementation and design (Mobekk, Fagerstrøm, & Hantula, 2018).

Due to increased uncertainty in the environment project progress is not favourable in Pakistan. The Pakistani Software industry requires revolutionary measures for improvement. Failure rate software projects, in Pakistan, is high. Furthermore, project management (PM) is not practiced as a full-time job in Pakistan. Practically sixty percent (60%) of the projects related managers have not possess formal project

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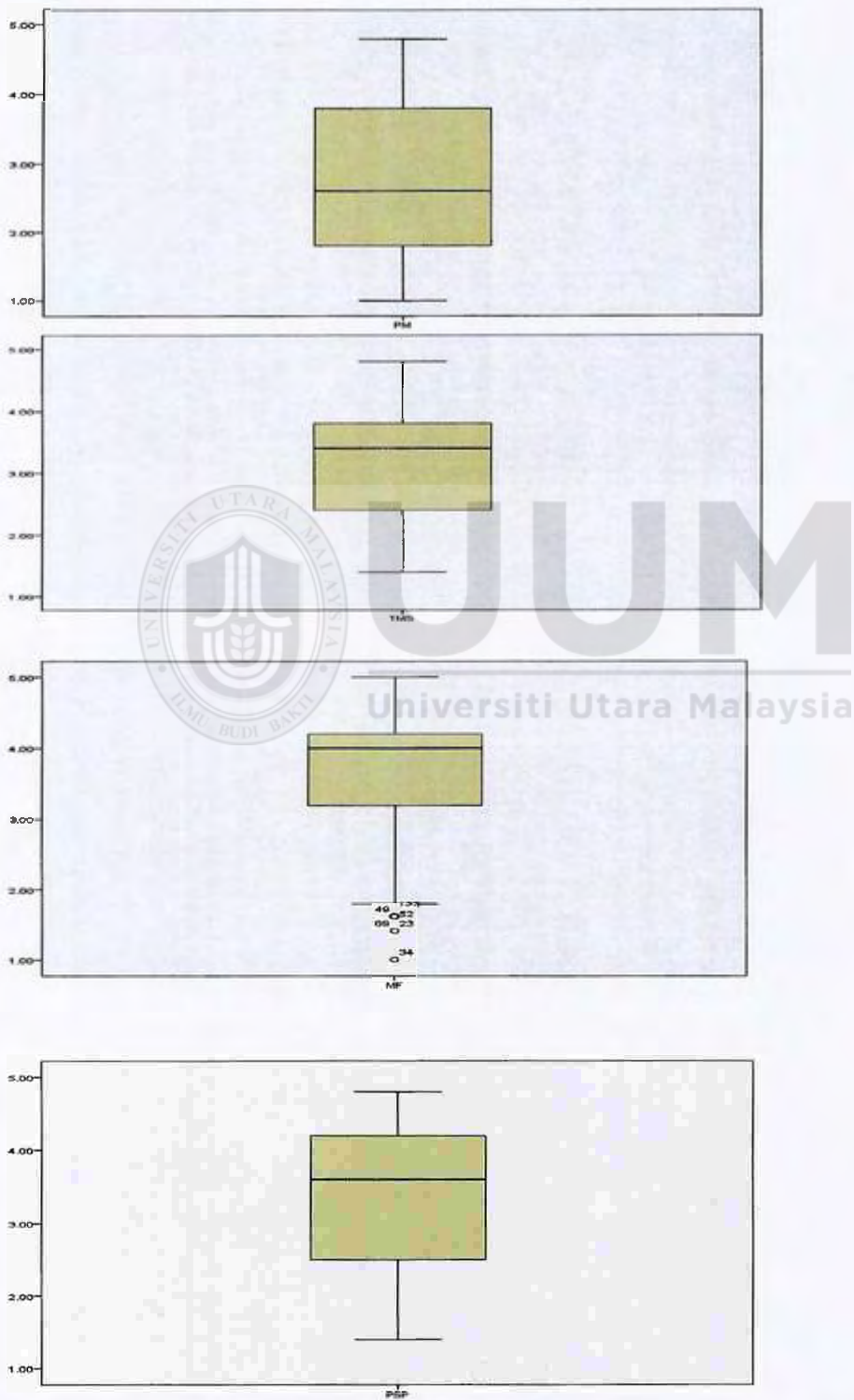
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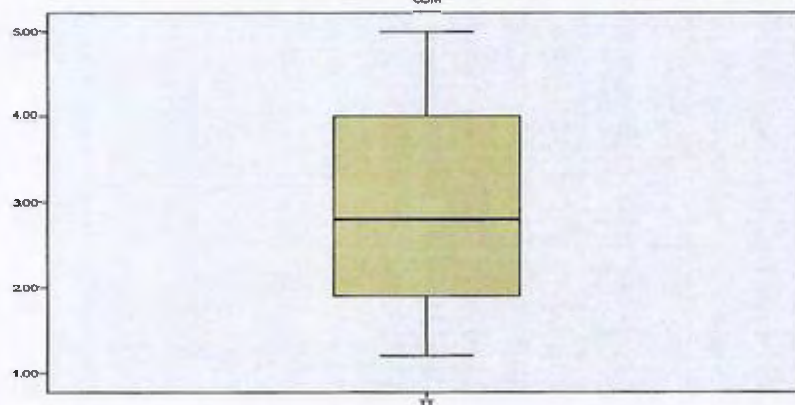
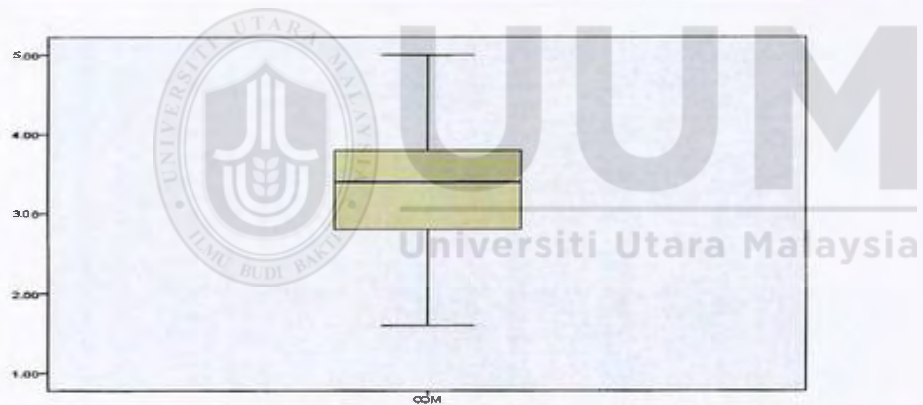
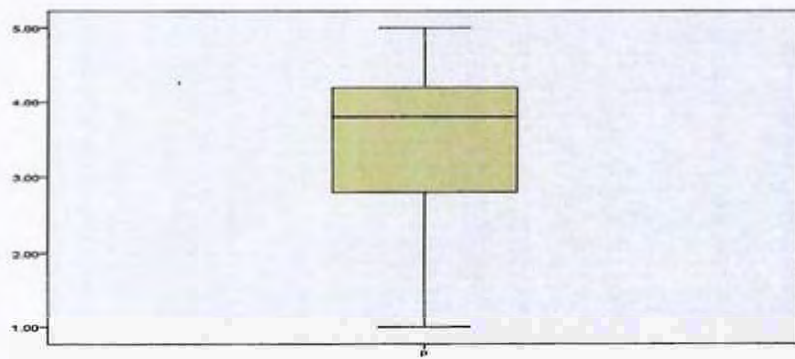
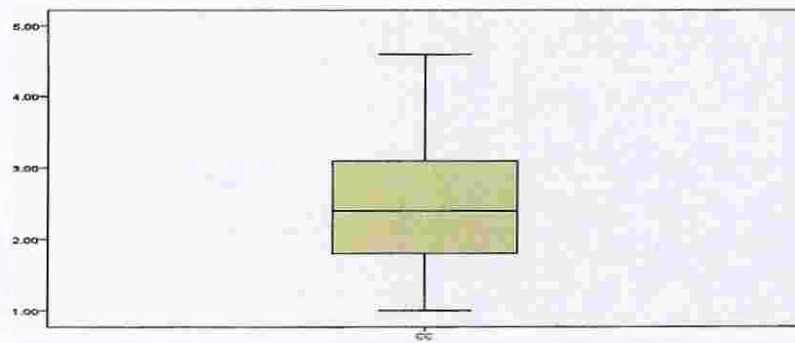
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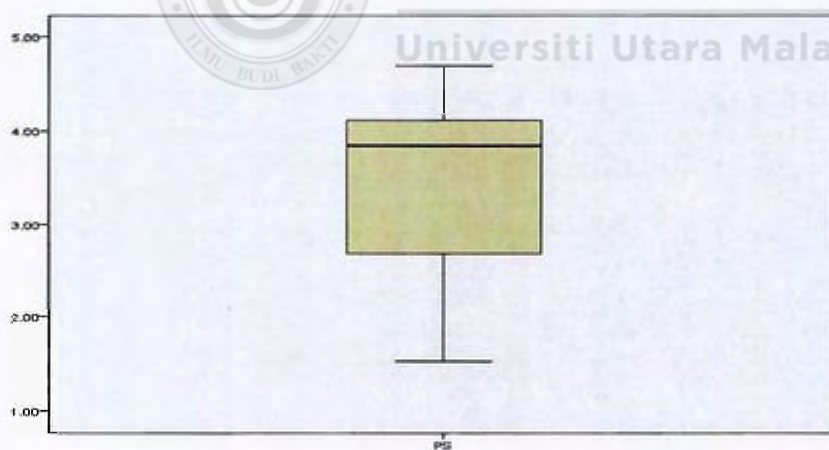
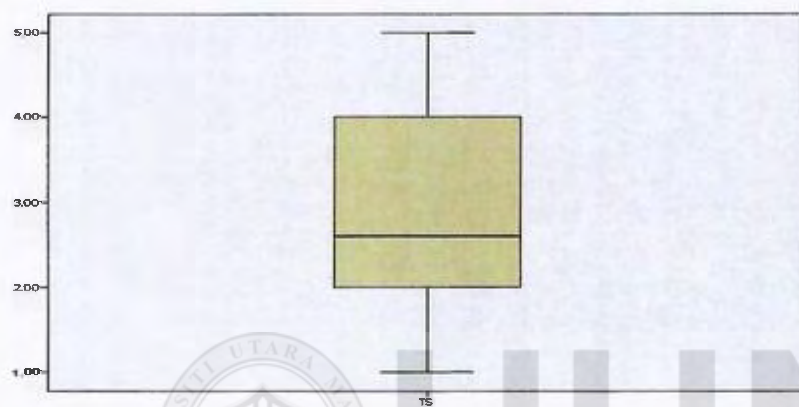
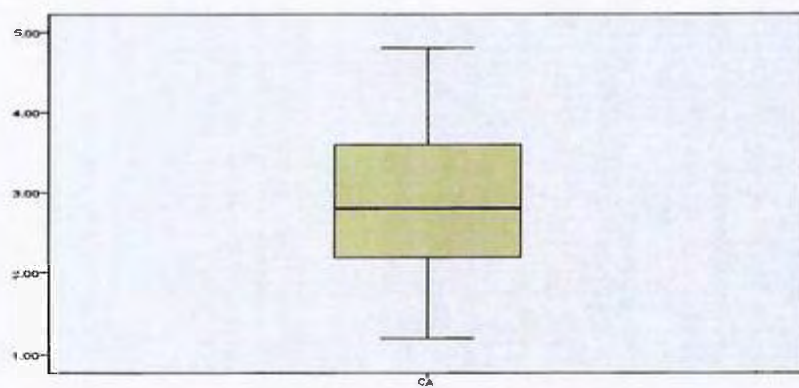


APPENDICES

Appendix A: Box Plot Outlier







Appendix B: Data Collected Sample

Code	Gender	Education	Age	Experience	Certification	Project_Activity_Product	Individual_Role	Leadership_Styles	Culture_Types	
1	1	3	2	2	2		7	5	1	2
1	1	2	1	4	1		7	3	2	1
1	1	3	2	2	1		6	3	2	1
1	1	3	2	2	2		6	3	2	1
2	1	3	4	4	2		6	2	1	1
1	1	5	4	2	2		6	3	1	2
1	1	3	1	2	2		7	3	1	2
1	1	3	2	4	2		1	3	2	1
1	1	3	2	3	2		6	3	2	1
1	1	2	2	1	2		1	3	1	2
1	1	4	2	2	2		6	4	1	2
1	1	3	2	2	3		6	3	1	2
2	1	3	2	3	2		4	4	2	1
1	1	3	2	2	1		4	3	1	2
2	1	3	2	2	2		6	3	2	2
2	1	3	4	3	2		6	5	2	2
1	1	3	3	1	2		6	5	1	2
1	1	3	2	1	1		5	3	2	1
2	1	3	2	3	2		1	1	2	1
1	1	3	2	2	2		6	3	1	2
1	1	2	2	2	2		1	3	1	2
1	1	2	3	2	2		1	5	2	1
1	1	3	2	2	2		6	4	2	1
2	1	3	1	2	2		1	1	2	1
2	2	3	4	2	2		6	3	2	2
1	1	3	3	3	3		5	2	1	1
2	1	3	3	2	2		6	1	2	2
1	1	2	2	2	2		1	4	2	1

Top Management Support					Project Mission					Client Consultation					Project Schedule & Planning				
TMS1	TMS2	TMS3	TMS4	TMS5	PM1	PM2	PM3	PM4	PM5	CC1	CC2	CC3	CC4	CC5	PSP1	PSP2	PSP3	PSP4	PSP5
4	5	5	5	5	2	3	4	4	4	4	5	3	5	4	5	5	5	5	4
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2	2	2	2	3	1	5	4	4	4	4	5	3	4	3	4	5	5	5	5
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1	1	2	2	2	2	5	4	5	5	1	2	2	1	5	1	1	1	3	2
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4	5	5	5	3	3	5	4	5	5	1	2	2	1	1	4	2	2	3	3
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3	5	4	4	4	4	4	4	5	5	3	4	3	2	3	5	5	4	4	4
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4	5	5	5	1	1	4	4	5	3	1	1	1	2	1	5	5	5	3	4

Technical Tasks					Personnel					Monitoring & Feedback					Communication				
TT1	TT2	TT3	TT4	TT5	P1	P2	P3	P4	P5	MF1	MF2	MF3	MF4	MF5	COM1	COM2	COM3	COM4	COM5
1	2	2	1	2	4	4	3	4	3	1	3	1	2	2	4	4	4	5	2
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2	4	2	1	1	4	4	5	5	5	4	5	4	5	5	4	4	4	5	1
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1	1	2	1	1	4	4	3	5	3	4	3	4	4	4	5	5	5	5	5
3	3	4	2	2	5	5	4	4	4	5	4	4	4	4	4	3	4	5	1
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4	4	5	5	5	5	2	2	2	2	1	1	3	2	2	3	3	3	4	4
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1	1	2	3	1	4	3	2	3	2	5	4	4	5	5	4	5	5	4	5
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5	4	5	4	5	3	5	3	4	4	2	2	3	2	2	4	4	4	5	4

Troubleshooting					Client Acceptance					Project Success												
TS1	TS2	TS3	TS4	TS5	CA1	CA2	CA3	CA4	CA5	PS1	PS2	PS3	PS4	PS5	PS6	PS7	PS8	PS9	PS10	PS11	PS12	PS13
1	2	2	1	2	5	4	5	4	4	3	1	4	3	5	4	4	5	2	5	4	5	4
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4	4	3	4	4	4	1	1	1	2	1	5	5	4	3	4	5	4	5	3	4	5	4
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Appendix C: Questionnaire

Questionnaire



Dear

It is my pleasure to inform you that I am conducting a pilot and field study for the purpose of making a scientific research in order to be awarded the PhD degree in Technology, Operation and Logistics Management from School of Technology Management and Logistics (STML), UUM COB, Universiti Utara Malaysia. The title of the study is “Project Implementation Profile Influencing IT Project Success. Moderating effect of Leadership Styles and Organization Culture Types in Pakistani Context”. Will you kindly answer the questions on the attached questionnaire as your cooperation in this respect will be of great effect in concluding valuable results from this study? The researcher wants to give every assurance that all information given in this questionnaire will remain, and dealt with confidentially, and will be used solely for the purpose of scientific research.

Thanking your co-operation,

Researcher

Muhammad Asghar Mughal (902396)

Questionnaire

Section A

Gender Tick (✓) one of any of field

Gender	Male	Female
	<input type="checkbox"/>	<input type="checkbox"/>

Education Tick (✓) one of any of field

Education	Certificate	<input type="checkbox"/>
	Graduation	<input type="checkbox"/>
	Master	<input type="checkbox"/>
	M.Phil.	<input type="checkbox"/>
	Ph.D.	<input type="checkbox"/>

Age Tick (✓) one of any of field

Age	20-29	<input type="checkbox"/>
	30-39	<input type="checkbox"/>
	40-49	<input type="checkbox"/>
	Above 50	<input type="checkbox"/>

Experience Tick (✓) one of any of field

Work Experience in IT Industry	Below 1 year	<input type="checkbox"/>
	1-5 years	<input type="checkbox"/>
	6-10 years	<input type="checkbox"/>
	Above 11 years	<input type="checkbox"/>

Certification Tick (✓) one of any of field

Are your business is certified by CMM/ISO?	Yes	No	In Process
	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

Project Activity/Product Tick (✓) one of any of field

A new software development	<input type="checkbox"/>
Enhancement software development	<input type="checkbox"/>
Replacing existing software	<input type="checkbox"/>
Replacing/adding hardware	<input type="checkbox"/>
Implementing package software	<input type="checkbox"/>
An information technology project	<input type="checkbox"/>
Others _____ (please specify)	<input type="checkbox"/>

Your Individual Role Tick (✓) one of any of field

Project Manager	<input type="checkbox"/>
Manager on Project team	<input type="checkbox"/>
Project team member-----Technical	<input type="checkbox"/>
Project team member-----Administrative	<input type="checkbox"/>
Others _____ (please specify)	<input type="checkbox"/>

Selection of Leadership style

1. Transactional Leadership. Transactional leadership has been centered on leader-follower exchanges. Followers perform according to the will and direction of the leaders and leaders positively reward the efforts. The baseline is reward system which can be negative like disciplinary action, if follower fails to obey, it can be positive like praise and appreciation, if subordinates meet the terms and conditions directed by leaders to achieve the assigned goals. Research has proposed three characteristics of transactional leadership which are contingent rewards, active management by exception and passive management by exception.

2. Transformational Leadership. Transformational leadership inspires people to achieve unexpected or remarkable results. It gives workers autonomy over specific jobs, as well as the authority to make decisions once they have been trained. Some of the basic characteristics of transformational leadership are inspirational, in that the leader can inspire workers to find better ways of achieving a goal; mobilization, because leadership can mobilize people into groups that can get work done, and morale, in that transformational leaders raise the well-being and motivation level of a group through excellent rapport. They are also good at conflict resolution.

Is Transactional or Transformational leadership being practiced by your Company?

Tick (✓) one of any of field	
a. Transactional Leadership	[]
b. Transformational Leadership	[]

Identification of culture type

To determine what type of organizational culture you belong to, here is a summary of the two types and their specific qualities:

The Market Culture: This culture is built upon the dynamics of competition and achieving concrete results. The focus is goal-oriented, with leaders who are tough and demanding. The organization is united by a common goal to succeed and beat all rivals. The main value drivers are market share and profitability. General Electric under ex-CEO Jack Welch is a good example of this culture. Welch vowed that every G.E. business unit must rank first or second in its respective market or face being sold off. Another example of the market culture is software giant Oracle under hard-driving Executive Chairman Larry Ellison.

The Hierarchy Culture: This culture is founded on structure and control. The work environment is formal, with strict institutional procedures in place for guidance. Leadership is based on organized coordination and monitoring, with a culture

emphasizing efficiency and predictability. The values include consistency and uniformity. Think of stereotypical large, bureaucratic organizations such as McDonald's, the military, or the Department of Motor Vehicles

Is Hierarchy or Market culture being practiced by your Company?

Tick(✓) one of any of field	
a. Hierarchy culture	[]
b. Market culture	[]

SectionB

Note: all fields are mandatory to fill.

Strongly Disagree	1	2	3	4	5	Strongly Agree
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1. Top Management Support

	1	2	3	4	5
1.Upper management is responsive to our requests for additional resources, if the need arises.					
2.Upper management shares responsibility with the project team for ensuring the project's success.					
3.I agree with upper management on the degree of my authority and responsibility for the project.					
4.Upper management will support me in a crisis.					
5.Upper management has granted us the necessary authority and will support our decisions concerning the project.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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2. Project Mission

	1	2	3	4	5
1.The goals of the project are in line with the general goals of the organization.					
2.The basic goals of the project are made clear to the project team.					
3.The results of the project will benefit the parent organization.					
4.I am enthusiastic about the chances for the success of this project.					
5.I am aware of and can identify the beneficial consequences to the organization of the success of this project.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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3. Client Consultation

	1	2	3	4	5
1.The clients were given the opportunity to provide input early in the project development stage.					
2.The clients (intended user) are kept informed of the project's progress.					
3.The value of project has been discussed with the eventual clients.					
4.The limitations of the project have been discussed with the clients (What the project is <i>not</i> designed to do).					
5.The clients were sold whether or not their input was assimilated into the project plan.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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4. Project Schedule/Plan

	1	2	3	4	5
1.We know which activities contain slack time or slack resources which can be utilized in other areas during emergencies.					
2.There is a detailed plan (including time schedules, milestones, manpower requirements, etc.) for the completion of project.					
3.There is a detailed budget for the project.					
4.Key personnel needs (who, when) are specific in the project plan.					
5.There are contingency plans in case the project is off schedule or off budget.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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5. Technical Tasks

	1	2	3	4	5
1.Specific project tasks are well managed.					
2.The project engineers and other technical people are competent.					
3.The technology that is being used to support the project works well.					
4.The appropriate technology (equipment, training programmes, etc.) has been selected for project success.					
5.The people implementing this project understand it.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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6. Personnel

	1	2	3	4	5
1. Project team personnel understand their role on the project team.					
2. There is sufficient manpower to complete the project.					
3. The personnel on the project team understand how their performance will be evaluated.					
4. Job description for team members have been written and distributed and are understood.					
5. Adequate technical and/or managerial training (and time for training) is available for members of the project team.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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7. Monitoring and Feedback

	1	2	3	4	5
1. All important aspects of the project are monitored, including measures that will provide a complete picture of the project's progress (adherence to budget and schedule, manpower and equipment utilization, team morale, etc.).					
2. Regular meetings to monitor project progress and improve the feedback to the project team are conducted.					
3. Actual progress is regularly compared with the project schedule.					
4. The results of the project reviews are regularly shared with all project personnel who have impact upon budget and schedule.					
5. When budget or schedule requires revision, input is solicited from the project team.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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8. Communication

	1	2	3	4	5
1. The results (decisions made, information received and needed, etc.) of planning meetings are published and distributed to applicable personnel.					
2. Individuals/groups supplying input have received feedback on the acceptance or rejection of their input.					
3. When budget or schedule is revised, the changes <i>and</i> the reasons for the changes are communicated to all members of the project team.					
4. The reasons for the changes to existing policies/procedures have be explained to members of the project team, other groups affected by the changes, and upper management.					
5. All groups affected by the project know how to make problems known to the project team.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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9. Trouble-Shooting

	1	2	3	4	5
1.The project leader is not hesitant to enlist the aid of personnel not involved in the project in the event of problems.					
2. "Brain storming" sessions are held to determine where problems are most likely to occur.					
3.In case of project difficulties, project team members know exactly where to go for assistance.					
4.I am confident that problems that arise can be solved completely.					
5.Immediate action is taken when problems come to the project team's attention.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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10.Client Acceptance

	1	2	3	4	5
1.There is adequate documentation of the project to permit easy use by the client (instruction, etc.).					
2.Potential clients have been contacted about the usefulness of the project.					
3.An adequate presentation of the project has been developed for clients.					
4.Clients know who to contact when problems or questions arise.					
5.Adequate advanced preparation has been done to determine how best to "sell" the project to clients.					

Strongly Disagree	1	2	3	4	5	Strongly Agree
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11. Project Success

	1	2	3	4	5
1.This project has/will come in on schedule.					
2.This project has/will come in budget.					
3.The project that has been developed works, (or if still being developed, looks as if it will work).					
4.The project will be/is used by its intended clients.					
5.This project has/will directly benefit the intended users: either through increasing efficiency or employee effectiveness.					
6.Given the problem for which it was developed, this project seems to do the best job of solving the problem, i.e., it was the best choice among the set of alternatives.					
7.Important clients, directly affected by this project, will make use of it.					
8.I am/was satisfied with the process by which this project is being/was completed.					
9.We are confident that non-technical start-up problems will be minimal, because the project will be readily accepted by its intended users.					
10.Use of this project has/will directly lead to improve or more effective decision making or performance for the clients.					
11.This project will have a positive impact on those who make use of it.					

